

## NSMI 1251/5202 cooling only

HFC  
Refrigerant  
R134a



Aermec participate in the EUROVENT program: LCP the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)

**Air/Water inverter chillers for outdoor installation**  
**Screw compressors, shell and tube heat exchangers and axial fans**  
**Cooling capacity 285 - 1201 kW**



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **MICROCHANNEL COIL**
- **LOW ELECTRICAL CONSUMPTION**

### Features

The NSMI are chillers, designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities. These are outdoor units with screw inverter compressors, axial fans, micro-channel coils, and shell and tube heat exchangers. The base, the structure and the panels are made of steel treated with rustproof polyester paint. Extremely reliable and flexible units which perfectly adapt themselves to all thermal load requests thanks to inverter technology, with high energy efficiencies both at full and partial load.

#### Versions

**NSMI\_A** High efficiency  
**NSMI\_E** High efficiency low noise

- Unit with 1/2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper coils.
- Electronic Thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit.
- Standard differential pressure switch
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different static pressures available
- Silenced versions feature a special compressor jacket which ensures a further noise reduction of approximately 4dB
- Microprocessor adjustment
- **Complete with latest generation Touch screen** allowing real time graphics visualization showing water and external air temperatures, pressures and requested load. Ethernet communication is offered as standard and allows all information to be visualized on a PC connected to the controller (via IP and browser).
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

### Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERNET:** the device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX:** Spring anti-vibration mounts.
- **Accessories factory fitted only**
- **KRS:** Evaporator trace heating
- **KRSDES:** Electrical resistor for desuperheater
- **GP:** Anti-intrusion grids.

## Accessories compatibility

Mod. NSMI	vers.	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202
<b>AER485P1</b>		-(x1)	-(x1)	-(x1)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)
<b>AERNET</b>		*	*	*	*	*	*	*	*	*	*	*	*	*
<b>PRV3</b>		*	*	*	*	*	*	*	*	*	*	*	*	*
<b>MULTICHILLER</b>		*	*	*	*	*	*	*	*	*	*	*	*	*
<b>AVX</b>	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*
<b>Accessories factory fitted only</b>														
<b>KRS</b>	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*
<b>KRS_DES</b>	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*
<b>GP</b>	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*

(1) Accessories to be defined for compatibility

(x2) Indicates the amount to order

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Description
<b>1,2,3,4</b>	<b>NSMI</b>
<b>5,6,7,8</b>	<b>Size</b> 1251-1601-1801 ( <b>single circuit</b> ) 2352-2652-2802-3202-3402-3802-4102-4402-4802-5202 ( <b>dual circuit</b> )
<b>9</b>	<b>Model</b> ° Only cooling
<b>10</b>	<b>Heat recovery</b> ° Without heat recovery <b>D</b> With desuperheater
<b>11</b>	<b>Version</b> <b>A</b> High efficiency <b>E</b> Low noise high efficiency
<b>12</b>	<b>Coils</b> ° Aluminium microchannel <b>O</b> Painted aluminium microchannel <b>R</b> Copper - Copper <b>S</b> Copper - Thinned <b>V</b> Copper Painted aluminium
<b>13</b>	<b>Fans</b> ° Standard <b>J</b> Inverter
<b>14</b>	<b>Power supply</b> ° 400V/3/50Hz fuses
<b>15,16</b>	<b>Integrated hydronic kit</b> <b>00</b> Without hydronic kit <b>PA</b> Pumping unit (pump A) <b>PB</b> Pumping unit (pump B) <b>PC</b> Pumping unit (pump C) <b>PD</b> Pumping unit (pump D) <b>PE</b> Pumping unit (pump E) <b>PF</b> Pumping unit (pump F) <b>PG</b> Pumping unit (pump G) <b>PH</b> Pumping unit (pump H) <b>PI</b> Pumping unit (pump I) <b>PJ</b> Pumping unit (pump J) <b>DA</b> Pumping unit (pump A and stand-by pump) <b>DB</b> Pumping unit (pump B and stand-by pump) <b>DC</b> Pumping unit (pump C and stand-by pump) <b>DD</b> Pumping unit (pump D and stand-by pump) <b>DE</b> Pumping unit (pump E and stand-by pump) <b>DF</b> Pumping unit (pump F and stand-by pump) <b>DG</b> Pumping unit (pump G and stand-by pump) <b>DH</b> Pumping unit (pump H and stand-by pump) <b>DI</b> Pumping unit (pump I and stand-by pump) <b>DJ</b> Pumping unit (pump J and stand-by pump)

## Technical Data

NSMI - A/E		1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	
		V/ph/Hz			400V/3/50Hz										
12°C / 7°C	Cooling capacity	(1) kW	285	382	463	519	605	658	724	801	841	946	1006	1108	1201
	Total input power	(1) kW	91	120	149	167	194	212	233	257	270	305	325	356	397
	EER	(1)	3,12	3,17	3,10	3,10	3,11	3,10	3,11	3,11	3,12	3,10	3,10	3,11	3,02
	ESEER	(1)	4,75	4,73	4,71	4,70	4,73	4,71	4,73	4,73	4,74	4,72	4,71	4,71	4,70
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	49130	65700	79773	89247	104092	113376	124682	137945	144852	162983	173442	191110	207270
	Pressure drop	(1) kPa	45	15	21	18	25	28	33	27	30	39	45	38	44

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

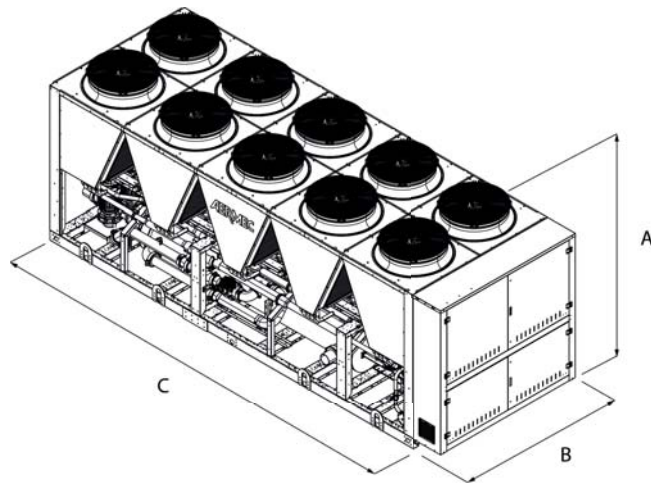
		1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	
<b>Electrical data</b>															
Total input current (cooling)	FA/FE	(3)	155	200	245	293	337	360	393	431	443	517	547	619	665
Maximum current (FLA)		(3)	251	291	378	442	473	519	519	567	654	708	753	874	917
Starting current (LRA)		(3)	51	51	58	572	605	651	651	775	862	989	1059	1180	1335
<b>Compressors - Screw</b>															
Compressors / Circuit		n°	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant		Type	R134a												
<b>Heat exchanger system side</b>															
Heat exchanger		Type/n°	Shell&tube/1												
<b>Axial fans</b>															
Fan		Type/n°	8	8	10	10	12	14	14	14	16	18	20	22	22
Air flow rate (cooling)		m³/h	128000	128000	160000	160000	192000	224000	224000	224000	256000	288000	320000	396000	396000
<b>Sound data (cooling)</b>															
Sound power level	A	dB(A)	97	99	99	99	99	100	100	100	100	100	101	103	103
	E	dB(A)	93	96	96	95	95	96	96	97	97	98	98	100	100

(3) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)



NSMI A/E				1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	
Height	mm	A	All	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	mm	B	All	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Length	mm	C	All	4760	4760	5950	6400	7140	8330	8330	8330	9520	10710	11900	13090	13090	13090